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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,602	01/18/2002	David Arthur Romano-Critchley	774P010140-US(PAR)	2979

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PERMAN & GREEN  
425 POST ROAD  
FAIRFIELD, CT 06824

EXAMINER
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NAHAR, QAMRUN

ART UNIT	PAPER NUMBER
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2191

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/052,602	<b>Applicant(s)</b> ROMANO-CRITCHLEY ET AL.	
	<b>Examiner</b> Qamrun Nahar	<b>Art Unit</b> 2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 30-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>02/07/02</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is in response to the preliminary amendment filed on 8/15/03.
2. Claims 1-29 have been cancelled.
3. Claims 30-56 have been added.
4. Claims 30-56 are pending and have been examined.

### ***Specification***

5. The disclosure is objected to because of the following informalities: "Figures 10 to 19 show an example of the GUI of Figure 8" on line 23 of pg. 16 of the specification should be "Figures 10 to 19 show an example of the GUI of Figure 9".

Appropriate correction is required.

### ***Claim Objections***

6. Claims 30, 47, 48, 49, 52, 54 and 55 are objected to because of the following informalities: "also" on lines 12, 11, 12, 11, 18, 14 and 14 of the claims, respectively, should be deleted. Appropriate correction is required.
7. Claim 41 is objected to because of the following informalities: "are populated" on line 2 of the claim should be "is populated". Appropriate correction is required.
8. Claim 48 is objected to because of the following informalities: "also" on line 14 of the claim should be deleted. Appropriate correction is required.

9. Claim 50 is objected to because of the following informalities: "A method or computer program product" on line 1 of the claim should be "A method". Appropriate correction is required.

10. Claim 48 is objected to because of the following informalities: "and," on line 18 of the claim should be "and". Appropriate correction is required.

11. Claim 53 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 53 substantially repeats the same subject matter as lines 3-10 of claim 52.

12. Claim 56 is objected to because of the following informalities: delete the extra period on line 7 of the claim. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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14. Claims 37, 39, 41, 45, 46, 48, 49 and 52-56 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

15. Claim 37 recites the limitation "the installation" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "an installation".

16. Claims 39 and 45 recite the limitation "the primary key" in line 5 of the claims. There is insufficient antecedent basis for this limitation in the claims. Therefore, this limitation is interpreted as "a primary key".

17. Claim 41 recites the limitation "the data tables" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "the data table".

18. Claim 46 recites the limitation "the "ConceptKey" concept" in lines 3-4 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "a "ConceptKey" concept".

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19. Claim 48 recites the limitation "the computer program" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "the computer program product".

20. Claim 48 recites the limitation "the program" in line 15 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "the computer program product".

21. Claim 48 recites the limitation "said model input" in lines 21-22 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "said data input".

22. Claim 49 recites the limitation "**the** semantics of **the** business domain" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "semantics of **a** business domain".

23. Claim 52 recites the limitation "the relationships" in line 7 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "relationships".

Claim 53 is rejected for dependency upon rejected base claim 52 above.

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24. Claim 54 recites the limitation "**the** semantics of the business domain" in line 4 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "semantics of the business domain".

25. Claim 55 recites the limitation "the computer program" in lines 2-3 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "the computer program product".

Claim 56 is rejected for dependency upon rejected base claim 55 above.

26. Claim 56 recites the limitation "the business infrastructure" in lines 4-5 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "a business infrastructure".

27. Claim 56 recites the limitation "**the** semantics of **the** business" in lines 6-7 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "semantics of **a** business **domain**".

### ***Claim Rejections - 35 USC § 101***

28. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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29. Claim 54 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per claim 54, merely claimed as a program representing a computer listing *per se* (computer program product), that is, descriptions or expressions of such a program and that is, descriptive material *per se*, non-functional descriptive material, and is not statutory because it is not a physical “thing” nor a statutory process, *as there are not “acts” being performed*. Such claimed programs do not define any structural and functional interrelationships between the program and other claimed aspects of the invention which permit the program’s functionality to be realized. Since a computer program is merely a set of instructions capable of being executed by a computer, the program itself is not a process, without the computer-readable medium needed to realize the program’s functionality. In contrast, a claimed computer-readable medium encoded with a program defines structural and functional interrelationships between the program and the medium which permit the program’s functionality to be realized, and is thus statutory. **Warmerdam**, 33 F.3d at 1361, 31 USPQ2d at 1760. **In re Sarkar**, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978). See MPEP § 2106(IV)(B)(1)(a).

It is suggested that claim 54 be amended to recite the claimed computer program product as “A computer program product comprising computer generated code **for generating** a business domain”.

### ***Claim Rejections - 35 USC § 102***

30. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:



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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

31. Claims 30-56 are rejected under 35 U.S.C. 102(e) as being anticipated by Bloom (U.S. 6,732,353).

**Per Claim 30:**

The Bloom patent discloses:

**- computer executable instructions defining a model execution application, the model execution application implementing a meta-model which is adapted to be populated with user inputs to generate one or more models, the meta-model being structured as a number of concepts, each concept having a number of properties, and one or more relationships between the properties of one or more of the concepts, wherein the relationships are defined as a concept within the meta-model and wherein the meta-model holds, as data, representations of models, and holds a representation of the meta-model itself (column 1, lines 54-67; and column 11, lines 64-67).**

**Per Claim 31:**

The Bloom patent discloses:

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**- in which the meta-model includes an active concept which can be populated with software components (column 1, lines 54-63).**

**Per Claim 32:**

The Bloom patent discloses:

**- in which the model execution application comprises a computer program code portion that provides access to the meta-model and which is adapted to accept user inputs to allow a model to be generated (column 7, lines 54-67 to column 8, line 1).**

**Per Claim 33:**

The Bloom patent discloses:

**- in which the model execution application comprises a program code portion that provides access to models generated using the meta-model so that the models can be executed by one or more users (column 12, lines 16-20).**

**Per Claim 34:**

The Bloom patent discloses:

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**- in which the model execution application comprises an infrastructure model defined in terms of the meta-model that facilitates the execution of the meta-model and any models generated using the meta- model (column 10, lines 21-30).**

**Per Claim 35:**

The Bloom patent discloses:

**- in which the infrastructure model is adapted to accept user defined implementation data inputs to populate the infrastructure model (column 10, lines 32-37).**

**Per Claim 36:**

The Bloom patent discloses:

**- in which the infrastructure model is adapted to present a user interface that allows the meta-model to be installed and executed by a user (column 12, lines 25-67 to column 13, lines 1-3).**

**Per Claim 37 (as best understood):**

The Bloom patent discloses:

**- in which the infrastructure model comprises an install model defining an installation of the computer program product (column 12, lines 25-67 to column 13, lines 1-3).**

**Per Claim 38:**

The Bloom patent discloses:

- in which at least one of the properties of each concept represents a primary key, the primary key being unique for each instance of the concept (column 7, lines 65-67 to column 8, line 1).

**Per Claim 39 (as best understood):**

The Bloom patent discloses:

- in which when a second concept is related to a first concept, one of the properties of the second concept represents a foreign key, the foreign key corresponding to a primary key of the first concept and representing the relationship between the two concepts (column 9, lines 18-23).

**Per Claim 40:**

The Bloom patent discloses:

- in which the meta-model is adapted to be populated by data, each concept defining a respective data table, and each property defining a respective column within the table (column 9, lines 34-55).

**Per Claim 41 (as best understood):**

The Bloom patent discloses:

- in which the data table is populated by entering instance data representing an instance of the respective concept, the instance data being entered within a respective row of the data table (column 9, lines 34-55).

**Per Claim 42:**

The Bloom patent discloses:

- wherein the instance data specifies the properties of the instance of the concept (column 9, lines 34-55).

**Per Claim 43:**

The Bloom patent discloses:

- in which the meta-model includes a "Concept" concept defining the concepts of the model to be defined, the properties of the "Concept" concept defining the properties of the concepts of the model to be defined (column 12, lines 4-12).

**Per Claim 44:**

The Bloom patent discloses:

- in which the meta-model includes a "ConceptProperty" concept which is related to the "Concept" concept, each instance of the "ConceptProperty" concept defining the properties of a respective concept defined in the "Concept" concept (column 12, lines 4-12).

**Per Claim 45 (as best understood):**

The Bloom patent discloses:

- in which the meta-model includes a "ConceptKey" concept related to the "Concept" concept, each instance of the "ConceptKey" concept identifying a primary key of a respective concept defined in the "Concept" concept (column 7, lines 65-67 to column 8, line 1; and column 12, lines 4-12).

**Per Claim 46 (as best understood):**

The Bloom patent discloses:

- in which the meta-model includes a "ConceptRel" concept related to a "ConceptKey" concept, each instance of the "ConceptRel" concept identifying the relationships between the concepts defined in the "Concept" concept (column 7, lines 65-67 to column 8, line 1; and column 12, lines 4-12).

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**Per Claims 47 & 50:**

These are method versions of the claimed computer program product discussed above (claims 30, 34 and 35), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bloom.

**Per Claim 48 (as best understood):**

This is another version of the claimed computer program product discussed above (claims 30, 34 and 35), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, this claim is also anticipated by Bloom.

**Per Claim 51:**

The Bloom patent discloses:

**- in which the meta-model is used to define a business domain model that represents a business or a part thereof** (column 4, lines 23-34; and column 9, lines 19-23).

**Per Claim 49 (as best understood):**

This is another version of the claimed method discussed above (claims 47 and 51), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, this claim is also anticipated by Bloom.

**Per Claims 52 & 53 (as best understood):**

These are method versions of the claimed computer program product discussed above, claim 30, wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above, including “dividing the business domain into a number of core concepts, each core concept having a number of properties and representing a self contained function of the business domain; determining the relationships between the core concepts” (column 9, lines 19-23). Thus, accordingly, these claims are also anticipated by Bloom.

**Per Claim 54 (as best understood):**

This is a computer program product version of the claimed method discussed above (claims 47 and 51), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, this claim is also anticipated by Bloom.

**Per Claims 55 & 56 (as best understood):**

These are computer program product versions of the claimed method discussed above (claims 47 and 51), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bloom.

***Conclusion***

32. Any inquiry concerning this communication from the examiner should be directed to Qamrun Nahar whose telephone number is (571) 272-3730. The examiner can normally be reached on Mondays through Fridays from 9:30 AM to 6:00 PM.



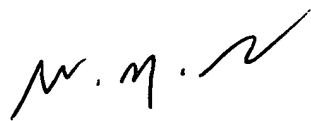
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached on (571) 272-3695. The fax phone number for the organization where this application or processing is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QN  
March 25, 2005



**WEI Y. ZHEN**  
**PRIMARY EXAMINER**